



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,423	04/06/2000	Daniel Joseph Ondrus	200-0500	7482
32996	7590	11/03/2005	EXAMINER	
GIFFORD, KRASS, GROH, SPRINKLE, ANDERSON & CITKOWSKI, PC P.O. BOX 7021 TROY, MI 48007-7021			KOCH, GEORGE R	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

### Period for Reply

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 31,33,34 and 36 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31 33 34 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some    \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 31, 33, and 34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not disclose that the first member *initially* has a generally planar portion and an arcuate portion at a second end of the planar portion.

3. Claim 36 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not disclose that the viscous adhesive is deposited "*initially* at a center point for the coverage length so that the adhesive *extends* between fifty to seventy five percent of the coverage length". This language varies from the originally filed disclosure, since it now appears to define the percentages of the end state of the adhesive (i.e., after

Art Unit: 1734

spreading), while the original disclosure defined from the percentages of the adhesive prior to spreading.

***Claim Rejections - 35 USC § 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Kehr (US Patent 3,660,217).

As to claim 31, Kehr discloses a method of repetitively (represented by each glue line and each layer) forming a joint between two members (for example, layers 24b and 24c) during a manufacturing process using a viscous adhesive, the method comprising the steps of positioning a first member (24b) having an arcuate portion (shown in Figure 3) to be in contact with a second member to form a coach joint during the manufacturing process, wherein the joint is defined by both a coverage portion having a coverage length extending along a length of the first member from a first point at a first end of the first member to a second point at the second end at which the first member begins to curve to form a tangent portion, and a flange fill portion having a flange fill length extending from the second point to a line segment that is collinear to the tangent portion (the definition of the joint is inherent to the coach joint), and depositing the viscous adhesive in about fifty percent of the coverage length and in about ten percent of the fill length to repetitively form the joint between the first member with the second member

Art Unit: 1734

during the manufacturing process (as shown by the fact that the glue lines only cover substantially below fifty percent of the area), so that seepage of the adhesive from the joint is a minimum while stress transfer is a maximum (inherent properties).

The language of the claim does not exclude creating the joint and arcuate portions after depositing the adhesive.

As to claim 33, Kehr discloses full coach joints (see Figure 3) such that the second member also includes a generally planar portion and an arcuate portion at the second end of the planar portion.

6. Claim 36 is rejected under 35 U.S.C. 102(b) as being anticipated by Kunz (US Patent 4,803,124).

As to claim 36, Kunz discloses a method of repetitively forming a lap joint (see Figure 6 and 5) between two members using a viscous adhesive during a manufacturing process, the method comprising the steps of positioning a first planar member (item 41) to overlap a second generally planar member (item 49) to form a lap joint during the manufacturing process, wherein the joint includes a coverage portion defined by a length of overlap between the first member and the second member, and depositing the viscous adhesive (starfish 21) at a center point for the coverage length and applying the adhesive between fifty to seventy five percent of the coverage portion, so that it is equidistant from the center point, to repetitively interconnect the first member and the second member for each joint during the manufacturing process, so that seepage of the adhesive from the joint is a minimum value while stress transfer of

Art Unit: 1734

the joint is a maximum. The difference between the coverage length in Figure 5 and the overlap length in Figure 6 is between 50 to 75 percent, especially at the inward portions of the starfish pattern. Furthermore, since Kunz is directed towards bonding of semiconductor "chips", emphasis plural, each chip bonded is considered a repeated bonding operation in a manufacturing process.

***Claim Rejections - 35 USC § 103***

7. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kehr as applied to claim 31 above, and further in view of Adhesives Handbook, (pages 1-19, 28-31, 40-43 and 94).

Kehr discloses all of the limitations of claim 31.

As to claim 34, Kehr discloses full coach joints, but does not disclose one half coach joints.

However, Adhesives Handbook discloses many well-known joints, including one half coach joints as in claim 26 and 34 (see page 11, and page 12, top row, third and fourth figure) and full coach joints as in claims 25 and 33 (for example, see page 12, top row, third and fourth figure). One in the art would appreciate that all of these joints are well known, have certain favorable loading and manufacturing characteristics (see Adhesives Handbook, pages 8, 18 and 19), and would utilize routine experimentation such as a stress analysis as disclosed in Adhesives Handbook to determine the appropriate joint. Therefore, it would have been obvious to one of ordinary skill in the ad

Art Unit: 1734

at the time of the invention to have utilized the claimed joints disclosed in Adhesives Handbook in order to achieve proper stress handling characteristics.

### ***Response to Arguments***

8. Applicant's arguments filed 8/04/2005 have been fully considered but they are not persuasive.

9. With respect to the rejections under 35 U.S.C. § 112, first paragraph, applicant's arguments are not persuasive. Applicant points out that the pictures show the various configurations claimed, but has not demonstrated anything about whether these are initial, in-process, or final states. There is nothing in the specification to suggest that the figures describe the initial states. For example, in page 7, lines 16-25, the language used in the specification is "the adhesive 12 covers or resides along a distance....equal to about fifty to about seventy-five percent of the total coverage length...". This phrase says nothing as to whether this coverage length is the initial length, the final length, or whether they are the same, or vary, or anything more than what it says. The section in page 6, line 15 to page 7, line 5 is interpreted similarly.

10. Furthermore, with respect to the art rejections, it is note that the references as applied above disclose various lengths in the drawings. Furthermore, it is noted that in Kehr, in one dimension parallel to the glue, the lines are applied edge to edge. But in the other dimension, perpendicular to the glue lines, the lines are space apart, and do not cover 100%. The claim language does not exclude these other dimensions.

Art Unit: 1734

11. Similarly, applicant argues that the Kunz reference does not define the coverage lengths claimed. This is not persuasive, since Kunz shows the claimed coverage lengths in the drawings and therefore defines the coverage length. Defining the center is merely interpreted as having a centering, which Kunz clearly has.

### ***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone



Art Unit: 1734

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George R. Koch III  
Primary Examiner  
Art Unit 1734

GRK  
10/30/2005